AMENDMENTS TO THE CLAIMS

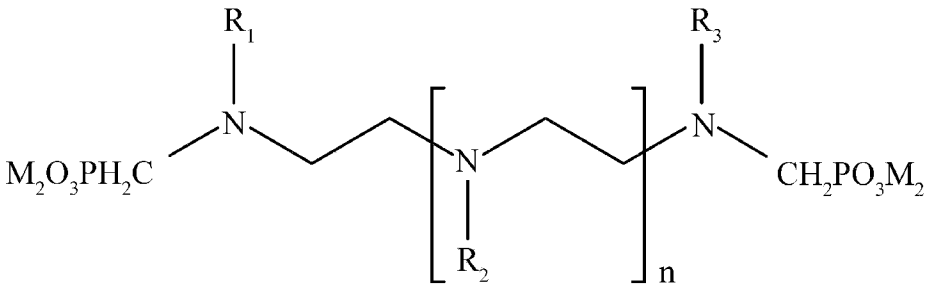
This listing will replace all prior versions and listings of claims, in the application.

Listing of Claims:

1.-2. (Canceled)

3. (New) A method for increasing dispersion in a liquid solution o dispersion, the method comprising:

adding a polyaminomethylenephosphonate composition to the liquid solution or dispersion, the polyaminomethylenephosphonate composition having the formula



wherein n is an integer higher than 2,

wherein M is a cation selected from the group consisting of the alkaline metal ions and the ammonium ion,

wherein R_1, R_2, and R_3 are each independently selected from the group consisting of,

$-CH_2PO_3M_2$,

$-CH_2R^1$, wherein R^1 is selected from the group consisting of $-CH_2OH$, $-CHOHCH_3$, $-CHOHCH_2Cl$, $-CHOHCH_2OH$,

$-(CH_2)_mSO_3M$, wherein m is 3 or 4,

$-CH_2CH_2R^2$, wherein R^2 is selected from the group consisting of $-CONH_2$, -CHO, $-COOR^3$, -COOX, -CN, wherein R^3 is $-CH_3$ or $-C_2H_5$, and wherein X is a cation selected from the group consisting of the alkaline metal ions and the ammonium ion, and

wherein the polyaminomethylenephosphonate composition is added in a quantity higher than 0.1% ppm of total solution or dispersion weight.

4. (New) The method of claim 1, wherein the solution or dispersion is a water solution or dispersion.

5. (New) The method of claim 3, wherein the polyaminomethylenephosphonate is added in a percentage not higher that 10% of the total solution or dispersion weight.

6. (New) The method of claim 3, wherein the liquid solution or dispersion further comprises other dispersing additives.

7. (New) The method of claim 3,

wherein the liquid solution or dispersion further comprises a cement composition,

wherein n is comprised between 2 and 50, and

wherein R_1, R_2, and R_3 are each independently selected from the group consisting of $-CH_2PO_3M_2$ and $-CH_2CH_2OH$,

whereby the addition of the polyaminomethylenephosphonate provides plasticizing properties to the solution or dispersion.

8. (New) The method of claim 7, wherein n is comprised between 2 and 10 and wherein the polyaminomethylenephosphonate composition is added in a percentage not higher than 5% of the total solution or dispersion weight.

9. (New) The method of claim 7, wherein the solution or dispersion further comprises a superplasticizer composition.

10. (New) The method of claim 9, wherein the superplasticizer composition is a polycarboxylic-polyether composition.

11. (New) The method of claim 3, wherein the liquid solution or dispersion further comprises a ceramic composition.

12. (New) The method of claim 3, wherein the ceramic composition is selected from the group consisting of clay, ceramic glass, and silicone carbide whiskers.

13. (New) The method of claim 3,

wherein the liquid solution or dispersion is a water solution or dispersion, and

wherein the water solution or dispersion further comprises one or more of the Ca, Mg, Ba, Cu, Fe, Mn, and Zr ions.

14. (New) The method of claim 3, wherein the water solution or dispersion further comprises one or more of a calcium salt and a barium composition, and wherein the water solution or dispersion is an over-saturated brine solution or dispersion.

15. (New) The method of claim 3, wherein the polyaminomethylenephosphonate composition is added as a sodium salt.

16. (New) The method of claim 3, wherein the polyaminomethylenephosphonate composition is added in a quantity comprised between 0.5% and 5% of the total solution or dispersion weight.

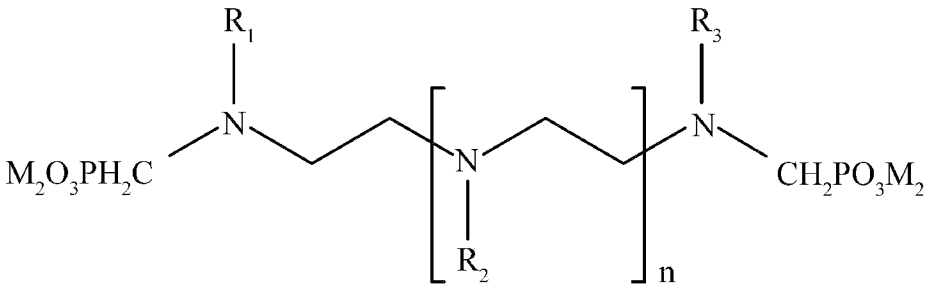
17. (New) The method of claim 3, wherein the liquid solution or dispersion further comprises a dyeing composition.

18. (New) The method of claim 3, wherein the dying composition further comprises an inorganic binder.

19. (New) The method of claim 3, wherein the inorganic binder is one or more of lime and silicates.

20. (new) A method for increasing dispersion in a liquid solution or dispersion suitable for the production of cements, detergents, ceramic materials, dyes, synthetic resins, rubbers, drilling fluids, and reverse osmosis products, the method comprising:

adding a polyaminomethylenephosphonate composition to the liquid solution or dispersion, the polyaminomethylenephosphonate composition having the formula



wherein n is an integer higher than 2,

wherein M is a cation selected from the group consisting of the alkaline metal ions and the ammonium ion,

wherein R_1, R_2, and R_3 are each independently selected from the group consisting of,

$-CH_2PO_3M_2$,

$-CH_2R^1$, wherein R^1 is selected from the group consisting of $-CH_2OH$, $-CHOHCH_3$, $-CHOHCH_2Cl$, $-CHOHCH_2OH$,

$-(CH_2)_mSO_3M$, wherein m is 3 or 4,

$-CH_2CH_2R^2$, wherein R^2 is selected from the group consisting of $-CONH_2$, -CHO, $-COOR^3$, -COOX, -CN, wherein R^3 is $-CH_3$ or $-C_2H_5$, and wherein X is a cation selected from the group consisting of the alkaline metal ions and the ammonium ion, and

wherein the polyaminomethylenephosphonate composition is added in a quantity higher than 0.1 ppm of total solution or dispersion weight.

21. (New) The method of claim 20, wherein the polyaminomethylenephosphonate is added in a percentage not higher that 10% of the total solution or dispersion weight.